

**Technology
for**

Alaskan Transportation

*Summer 1988 — Volume 8
University of Alaska Fairbanks
Transportation Technology
Transfer Program*

Technology Transfer Keeps on Truckin'

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Alaska's Transportation Technology Transfer Program had its second birthday on June 11. A lot has happened in those two years.

More than 1,200 people now subscribe to our newsletter. We have offered 14 short courses on transportation issues to a total of 264 Alaskans and some Canadians as well. With each training session we offer, we learn more about the how, when, what and why for future sessions. Our goal is both to reach more people and to better define the needs of our audience.

In addition to our newsletter and our training sessions, we have developed the nucleus of a library of publications and videos that can be loaned to anyone who is interested. We can also provide free copies of some

publications that are particularly valuable to Alaskans.

Our information services network is continuing to grow as Alaskans become aware of the services we offer. By this spring we had developed the nucleus of this program, which included 65 different publications available for loan, 18 free publications, and 39 video training courses. A major priority in the coming months is to dramatically expand our library holdings. Updates on available publications and videos will be mailed to newsletter subscribers twice per year.

Any suggestions on future courses, newsletter content or any other issue would be most welcome. Call John D. Martin at (907) 451-5150 or Dr. Jan Botha at (907) 474-7497.

Mailboxes Can Kill

Perhaps a hundred people die each year in the United States when their vehicles strike mailboxes on rural roads and highways, and many more people are injured. The severity of these accidents is caused by the design of the mailboxes and their supports. Unfortunately, most accident record systems do not isolate accidents associated with mailboxes, so the full extent of this problem is not known.

As many as 20 million mailboxes dot rural roads and highways, and another 10 to 15 million are installed on suburban streets.

Rural mailboxes are especially common throughout Alaska, so the opportunity for problems is significant.

The typical rural mailbox is mounted on a 4 x 4 inch wooden post or a 1.5 inch diameter light gauge pipe. Such setups do not pose a serious hazard. Motorists are threatened, however, by massive mailbox supports such as masonry columns, railroad rails and ties, tractor wheels, plow blades, barrels filled with concrete, and such.

Grouped mailbox installations pose a par-

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*This newsletter is funded by a
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News & Views

The Long and Wining Road

The government of Vienna, Austria, has come up with a safe use for millions of gallons of wine withdrawn from the market after they discovered that the wine had been spiked with a toxic antifreeze additive. Mixed with salt, the wine melts hazardous highway ice much better than road salt alone, as long as they apply no wine before it's time.

Reducing Fender Benders

Mike Kopaczewski of Care Cabs in Milwaukee reports that the company has reduced their fender benders from backing up by 87 percent. A major factor has been the installation of low-cost, rear-view mirror magnifiers to eliminate blind spots. Other organizations also report great success with these magnifiers. They attach very simply and can be transferred from old to new vehicles. Kopaczewski got his magnifiers from J.C. Whitney, a mail-order firm specializing in vehicle supplies in Chicago. They call this device a "rear view lens for RVs," and it comes in three sizes.

Highway Trouble Down the Road

The future of Alaskan roads and highways looks bleak. Federal dollars contribute over 90 percent of the money spent to build principle Alaskan roads. Current federal support for Alaskan roads, which amounts to \$150 million annually, will expire in 1991. Worse, Congress is in no mood to heavily subsidize Alaskan transportation any longer. If federal funding is reduced to the same per capita funding as the other states, Alaska's additional financial burden would be equivalent to a new state gas tax of 40 to 80 cents per gallon.

Highway funding was just one difficult issue that was tackled by the 1988 Alaska Transportation Forum on March 4 and 5 in Fairbanks. This was the fifth annual forum organized by the University of Alaska Transportation Center, and it was the most important forum thus far for Alaska's future. It was also the best attended forum ever sponsored by the University of Alaska Transportation Center.

Besides the funding issue, the forum included its traditional high-quality technical

sessions on current and long-term transportation issues, as well as ongoing research relevant to Alaskan transportation. Because of major changes pending in both state and federal policy, the forum focused on issues with longer term implications than the previous forums, and the topics not limited to highway issues.

The Alaska Transportation Forum took place on March 4, and provided a substantial foundation for the Transportation 2020 Forum on March 5. The Transportation 2020 project is a nationwide effort organized by the U.S. Department of Transportation to develop a national consensus on how to meet the country's mobility needs from 1991 until the year 2020. A hearing conducted in each state to forge a consensus on future needs at the federal, state and local levels. Alaskan testimony came from all government levels, as well as from the private sector and individual citizens.

UATC's goal for next year is to stimulate greater participation of people from smaller communities and the private sector in the 1989 Alaska Transportation Forum.

Improper Signs and No Guardrail = \$1,000 per Month

A Wyoming county and the state government of Wyoming recently settled a suit alleging that injuries sustained by a couple when they failed to negotiate a curve were caused primarily by lack of proper signing and the failure to erect a guardrail. According to the plaintiffs' attorney, in *Wade vs. County of Fremont and State of Wyoming*, his clients failed to negotiate a sharp curve to the left where no reduced speed sign was posted, and the existing curve warning was only 200 feet in advance of the curve.

The attorney said that he consulted the *Manual on Uniform Traffic Control Devices* (MUTCD) and concluded that the curve warning for that kind of road should have appeared 750 before the curve. He also contended that a reduced speed zone should have existed around the sharp curve. In support of this allegation, a county road commissioner had stated he believed the curve should only be negotiated at 25 to 35 mph. The regular speed limit posted was 55 mph.

In addition to the sign defects, the attor-

ney alleged that a guardrail was necessary around the curve to prevent vehicles from roadside dangers. He indicated that both the state and the county were liable for the defects since the state had made improvements on the road just south of the curve several years earlier, but had failed to improve signing. The county, on the other hand, had ongoing responsibility for the safe operation of the two-lane rural highway, but it failed to sign the road in accordance with the MUTCD.

The case was settled for the plaintiffs for \$170,000 cash plus \$1,000 per month to the woman for the rest of her life, since her injuries were more severe.

Construction Signing with No Work is No Defense

Contracts were awarded by the Louisiana Department of Highways to independent contractors for the resurfacing of several miles of highway. The department agreed to undertake the job of raising the shoulders to meet the new elevation of the highway after the overlay work had been completed. After the resurfacing had been completed, but before any part of the raising of the shoulders had begun, an automobile carrying several passengers went off the road (because of momentary inattention of the driver) and turned over, killing one of the passengers and injuring three others.

Suit was brought alleging negligence on the part of the Department of Highways in failing for a period of five months to take any action to reduce the amount of the drop-off, which was described as constituting "several inches." It appeared from the facts that—during the entire period of the five-month delay in elevating the shoulders, and at the time of the accident—the road was posted with CONSTRUCTION and LOW SHOULDER signs. Louisiana defended on the ground that the project was adequately signed for the protection of motorists at all times.

In affirming judgment rendered for the plaintiffs, the appellate court dismissed the impact and significance of the signing with the statement that the erection of warning signs may lessen road hazards, but it does not eliminate them. The court went on to state that signs left standing over a long period of time with no evidence of construction being in progress tend to lose their effective-

ness, particularly with respect to motorists who regularly use the highway.

Publication on Low-traffic Roads

Economic Design of Low-traffic Roads is published by the Organization for Economic Cooperation and Development. Copies can be purchased for \$15 from OECD Publications and Information, 2001 "L" Street, N.W., Washington, DC 20036 or call (202) 785-6323.

ASCE Offers Continuing Education:

The American Society of Civil Engineers offers continuing education in engineering and technology. Their *1988 Professional Development Guide* includes courses on liability and risk, computers, bridge rehabilitation, and communication, among others. For more information contact ASCE, 345 East 47th Street, 18th Floor, New York, NY 10017 or call (800) 548-2723.

Mailboxes Can Kill

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ticular threat to motorists since the horizontal member of these installations lies at windshield height. Motorists striking grouped mailboxes have been impaled or decapitated.

Carefully installed mailboxes can dramatically reduce the probability of injury or death for this type of accident. Mailboxes should be situated so they are as visible as possible to oncoming traffic. Mailboxes should also be mounted on one-post supports, which generally inflict less damage to vehicles and occupants than two-post or concrete supports.

Ideas for installing mailboxes are described in *A Guide for Erecting Mailboxes on Highways*, which is published by the American Association of State Highway Officials (AASHTO). This guide can be purchased for \$5.25 postpaid from AASHTO, Publications, Suite 225, 444 N. Capital Street N.W., Washington, D.C. 20001. This publication can be borrowed from the Alaskan Transportation Technology Transfer Program. Call (907) 474-7733.

Worried About Lawsuits? Here are some resources.

What do you do when accident prevention fails and you find yourself facing lawyers and courts? Al King of the Washington State Department of Transportation advises that you must know what to expect, have your facts and data in mind, know the game rules, and be ready to face lawyers on their own ground. He recommends reading three excellent references.

Killer Roads: From Crash to Verdict

by Richard S. Kuhlman, The Michie Company, Charlottesville, VA.

This book is written to help attorneys win tort liability cases against your agency. Kuhlman says in the introduction that today "every practicing lawyer in this country will have, statistically, at least one client involved in a serious crash *substantially caused by defective road maintenance or design*," (emphasis is King's).

The book lays out the rules and the game plan. It will also assist you and your attorney. King says that this book is a must if you will be involved to any extent in the court arena.

Ten Commandments (More or Less) for the Expert Witness

by Alfred R. Pagan, published in and available from *Better Roads* magazine.

This pamphlet is an excellent resource to help anyone who may have to appear as an expert witness. It is short, readable and to the point. It contains the basic requirements for being a good, reliable witness. You must understand the question, answer the question and only the question, and you must tell the truth. The booklet is inexpensive and invaluable. Read it, follow its suggestions, and you should do well.

The Deposition Guide

by Larry G. Johnson, J.D. Law Forum Press, Seattle.

This 49-page pamphlet will help anyone understand and respond to depositions (formal questioning under oath by attorneys), but the guide will be particularly valuable to anyone testifying as an expert.

Reviews of these three references were adapted from an article by Al King in the *Northwest Technology Transfer Center Bulletin*.

Technology for Alaskan Transportation is a quarterly newsletter that informs local transportation people in government and industry of useful publications and services. The newsletter reports on practical information, new technology, and learning opportunities such as workshops, seminars and video tapes. To get on our mailing list, to receive any of our services, or to contribute to the newsletter, contact:

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About Our Program

The goal of the Transportation Technology Transfer Program is to help local agencies obtain useful information and training related to local transportation needs. The program focuses on technology related to roads, bridges and public transportation. In addition to our newsletter, we provide low-cost seminars and workshops, provide copies of useful technical reports upon request, and answer phone and mail inquiries related to transportation technology. If we don't have the answer, we will refer the question to a suitable specialist.

The Transportation Technology Transfer Program is administered by the Alaska Department of Transportation and Public Facilities, with principal support provided by the Transportation Research Center at the Institute of Northern Engineering on the campus of the University of Alaska Fairbanks. This program is funded by the Federal Highway Administration, the University of Alaska Fairbanks (UAF), and the Alaska Department of Transportation and Public Facilities (DOT&PF).

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Calendar of Events

We will be happy to include any relevant event you would like to publicize. Call the editor at (907) 474-6116. For more information about events in Alaska, call John D. Martin at (907) 451-5150 or Dr. Jan Botha at (907) 474-7497.

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July 7—Safety Studies for Local Roads and Streets. Fairbanks.

July 8—Safety Features for Local Roads and Streets Workshop. Fairbanks.

July 11—Safety Studies for Local Roads and Streets. Juneau.

July 12—Safety Features for Local Roads and Streets Workshop. Juneau.

July 24-28—27th Annual Workshop on Transportation Law. Transportation Research Board, Lake Placid, New York. Call Angelia Arrington at (202) 334-2934.

August 19-20—Conference on Slope Stability. Transportation Research Board, Park City, Utah. Call Angelia Arrington at (202) 334-2934.

October—Course 103, Interpreting Engi-

neering Drawings. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

October—Course 104, Property Descriptions. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

1989

May—Course 201, Communications in Real Estate Acquisitions. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

May—Course 213, Conflict Management. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

September—Course 701, Property Management—Leasing. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

September—Course 702, Land Management. Fairbanks. Sponsored by the Arctic Trails Chapter 71, International Right of Way Association.

Long Engine Warm-ups Potential Fire Hazard

Did you know that leaving your car idling and going back into the house while it warms up could lead to a fire in your engine?

The National Highway Traffic Safety Administration has cautioned motorists about leaving a cold engine to idle for an extended period of time. The agency explained that, when an engine is cold, most vehicles equipped with a carburetor will idle fast while the choke is on until the operator depresses the accelerator pedal to return the idle to normal. If the operator neglects to do this, or is away from the vehicle, the engine may operate too long with the choke on, the catalytic converter could overheat and cause a fire. Due to differences among vehicles, NHTSA suggests that drivers consult their owner's manual to determine how long the manufacturer advises that an engine can be idled safely.

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